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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,055	04/17/2002	Robert Arthur Sawhill JR.	P/2778-21	7988

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EXAMINER

HOLLINGTON, JERMELE M

ART UNIT PAPER NUMBER

2829

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N

09/980,055

Applicant(s)

SAWHILL ET AL.

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 12-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 9.

Drawings

2. The drawings are objected to because in Figure 3 there are no legends in the box. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The disclosure is objected to because of the following informalities: as provided in 37 CFR 1.77(b), the specification of a utility application should include each of the following lettered items in upper case, without underlining or bold type, as a section heading: TITLE OF THE INVENTION, BACKGROUND OF THE INVENTION, BRIEF SUMMARY OF THE INVENTION, BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S), DETAILED DESCRIPTION OF THE INVENTION, ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet). Appropriate correction is required.

5. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 1-5 and 10-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim recites "a guide member mounted on the body member..." However, the specification [see page 8, lines 1-4 and page 9, third paragraph] does not particularly point the claim limitation.

For examination purpose, the examiner is taking the position that guide member is not mounted on the body member until the applicants clarify the above claimed limitation. Since claims 2-5 and 10-11 depend off of claim 1, they are also rejected for the above reason.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 6-8 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasawa et al (5532613).

Regarding claims 1, Nagasawa et al disclose [see Fig. 3] an interface device [see Note below] comprising a body member (intermediate portions 32) a number of elongate contact members (probe needles 30), each elongate contact member (30) comprising a contact end (tip

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portion 31), adapted to contact a bond pad (electrode pad 42) of an IC (wafer W) to be tested, and a body portion (rod-like member 51 shown in Fig. 4) coupled to the body member (32) and a guide member (guide plates 22a and 23a) electrically coupled to the body member (32), the guide member (22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] therein, the contact end (31) of each elongated member extending through a respective aperture [see Fig. 3] in the guide member (22a and 23a), and the width of each contact end (31) being less than the width of the aperture [see Fig. 3] to permit lateral movement of each contact end (31) within the respective aperture.

[Note: the recitation “for providing an interface between testing equipment and an integrated circuit to be tested” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).]

Regarding claim 2, Nagasawa et al disclose the elongate contact member (30) is formed from metal wire (rod-like member 30a) with a diameter of 1 mil to 10 mil [see col. 5, lines 21-22].

Regarding claim 3, Nagasawa et al disclose the elongate contact member (30) has a diameter of between 1 mil to 6 mil [see col. 5, lines 21-22].

Regarding claims 6 and 10, Nagasawa et al disclose [see Fig. 3] an interface device [see Note below] comprising an elongate contact member (probe needle 30) comprising a body portion (rod-like member 51 shown in Fig. 4) and a contact end (tip portion 31), the contact end

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(31) adapted to contact a bond pad (electrode pad 42) of an IC (wafer W) to be tested, and the contact end (31) having friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

[Note: the recitation "for providing an interface between testing equipment and an integrated circuit to be tested" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).]

Regarding claim 7, Nagasawa et al disclose the tip surface of the contact end (31) is coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

Regarding claim 8, Nagasawa et al disclose the coating (Inconel with gold) is a hard coating.

Regarding claim 11, Nagasawa et al disclose the side surfaces (not number but shown in Fig. 3) of the contact end (31) are coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30].

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasawa et al (5532613) in view of Kern (4812745).

Regarding claim 4, Nagasawa et al disclose a guide member (guide plates 22a and 23a) electrically coupled to the body member (32), the guide member (22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] therein. However, Nagasawa et al do not disclose the planar member of the guide member is manufactured from a glass material as claimed. Kern discloses an interface device [see Fig. 1] comprising elongate contact member (probe 10) with a contact end (contact tip 22, 24 or 26) and a guide member (guide plate 12) having a planar member manufactured from a glass material (glass-filled epoxy board) [see col. 1, lines 40-44 and lines 63-65] with a number of apertures (holes 28, 20 and 32). Further, Kern teaches that the addition of guide plate with a glass material planar member (glass-filled epoxy board) is advantageous because it flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during measurement of the device under test. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the apparatus of Nagasawa et al by having the planar member of the guide plate with a glass material as taught by Kern in order to flex slightly so that the tip portions of the probe accurately aligned and correctly spaced during testing.

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Regarding claim 5, Nagasawa et al disclose a guide member (guide plates 22a and 23a) comprising a planar member having a number of apertures [not number but shown in Fig. 3 see also col. 5, lines 31-59] in combination with Kern who discloses an interface device [see Fig. 1] comprising a guide member (guide plate 12) having a planar member manufactured from a glass material (glass-filled epoxy board) [see col. 1, lines 40-44 and lines 63-65] with a number of apertures (holes 28, 20 and 32). However, neither Nagasawa et al nor Kern disclose the glass material is borosilicate glass. It is well known to use different type of glass for a guide member where needed (see MPEP 2144.04; *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use different type of glass materials for a guide plate since the different type glass materials are matters relating to ornamentation, which have no mechanical function, that would provide support in a selective manner to each individual user that uses probe or elongated contact member to test a device under test.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasawa et al (5532613).

Regarding claim 9, Nagasawa et al disclose the tip surface of the contact end (31) is coated with friction reducing coating (Inconel with gold) [col. 8, lines 8-30] that is a hard coating. However, they do not disclose the hard coating is selected from chrome nitride and titanium nitride as claimed. It is well known to use different type of coating material for a contact tip where needed (see MPEP 2144.04; *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947)). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use different type of coating material for a contact tip since the different type coating

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materials are matters relating to ornamentation, which have no mechanical function, that would provide support in a selective manner to each individual user that uses contact tip to reduce friction on the tip when testing a device under test.

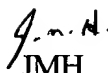
Conclusion

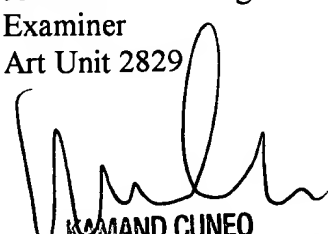
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chambers et al (3944922), Seinecke (4847553), Nagasawa et al (5690998) and Bayer et al (6356089) disclose method and apparatus for testing a device under test with a probe device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (703) 305-1653. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


JMH
August 13, 2003

Jermele M. Hollington
Examiner
Art Unit 2829

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